

RAMBLINGS

THE TIMEX® COMPUTER CLUB NEWSLETTER

For
Timex
Computer Club
Members

RESERVATIONS FOR THE T/S 1000 ARE NOW BEING TAKEN

Because interest in the **TIMEX Sinclair Personal Computer** is so keen at the John C. Hart Memorial Library in Shrub Oak, New York, reservations to obtain computer time must be made well in advance. According to Library Director, Betty F. Stewart, approximately 40-eager patrons have been waiting — for as long as three months — just for a chance to obtain “hands-on” experience with the computer.



**JOHN C. HART
MEMORIAL LIBRARY**

Since its inception in January of 1983, this unique computer lending program has captured the imagination of would-be computer whizzes in this northern Westchester County (NY) community of 32,000. Ms. Stewart explains, “The purpose of this program is to foster computer literacy and to overcome the fear of computers. It is much less intimidating and frightening if a patron has the opportunity to work with a computer in the comfort of the patron’s own home.”

The time-sharing program is working well. Although computer time has been booked solid since the program began, library patrons — ranging from 13 to 90 — have learned to operate the **TIMEX Sinclair Personal Computer** with little difficulty.

Library staff is always on-hand to answer any questions. “We are just as eager as our patrons to learn about the computer. If there are questions we can’t answer,” said Ms. Stewart, “we simply call the **TIMEX 800 number**.”



**PATRICIA GEORGE, HEAD OF
CIRCULATION, SHOWING THE T/S 1000
TO LIBRARY PAGE, DAVID HILL**

The library owns two personal computers: A **T/S 1000** — which the library purchased — and a **ZX-81** — which was donated by a patron. The computer plus a start-up kit — consisting of the **TIMEX Ram Pack**, an instruction manual, a tape recorder, and two **TIMEX** software cassettes — are loaned for a period of one-week.

Besides the use of library cards to track every item that is loaned, the patron is required to sign a responsibility form (parents sign for minors) to insure that the computer is well cared for (upon its return, a quick program is run to confirm that the computer is in good operating condition).

Overdue loans is not a great problem either. To encourage the prompt return of the computer, a hefty \$2.00 per-item, per-day (including weekends) fee is enforced. Library circulation staff conscientiously call all patrons in advance of the due date. This is done to avoid the imposition of an expensive overdue charge.

In addition to books and computers, the John C. Hart Memorial Library also circulates tape cassettes, books on cassettes, records, comic books, magazines, Polaroid cameras, and educational toys. “The library’s philosophy is that information, in whatever form, should be considered as a service,” concluded Betty Stewart.

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STARTING OFF ON THE RIGHT FOOT

It’s Friday the 13th.

The electricity went off and your alarm clock didn’t. Late already, jump out of bed and stub your toe. Gobble your breakfast, but the toast is burnt and the coffee’s cold. Start your car and the battery’s dead.

Some days it just seems like nothing goes your way!

Well, cheer up! There’s an easy way to start off on the right foot with your **TIMEX Sinclair Personal Computer**. And, the best way to do so is to make sure that your computer has been properly installed.

Let’s briefly run through the installation steps. As we go along, you can check to confirm that your computer has been connected properly (the illustrations below will serve as a guide to the proper installation techniques):

1. Place your **TIMEX Sinclair Personal Computer** next to your television set.
2. Disconnect the antenna leads from the VHF terminals on the rear of your television set and reconnect them to the two screw terminals on the side of the Computer/TV Switch Box.
3. Connect the leads on the Switch Box to the VHF terminals on the rear of your television set.

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Reservations T/S 1000 continued



CIRCULATION DISPLAY

TIMEX has recently instituted a special program for libraries which includes the computer and all installation accessories, instruction manual, RAM module, and **TIMEX** carrying case — all included at a very special price. Please contact the **TIMEX** Education Department for more information.

Imagine a computer lending library! What will people think of next?



RAMBLINGS BOOK REVIEW

Containing more than 65 programs, the book, "Mastering Your Timex Sinclair 1000™ Personal Computer," combines text and a "learn-by-programming" approach to introduce the **T/S** user to the fundamentals of **TIMEX Sinclair** Programming.

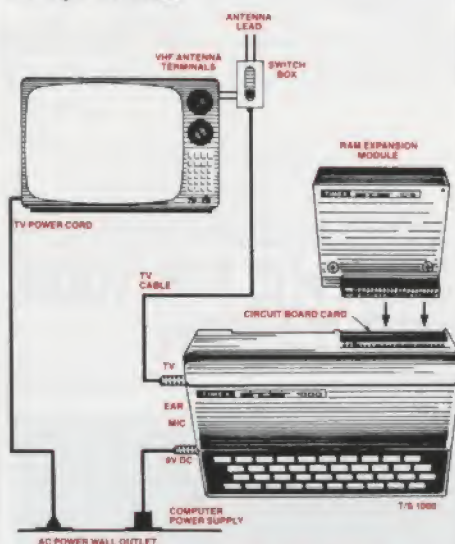
Right from the start, the reader utilizes the book as a "programming guide" to load programs into the **T/S 1000**. Ranging from simple print commands to some rather sophisticated mathematical applications, the reader begins to learn how the computer is programmed and works.

Highly structured, the book's topics include loading and saving techniques, hints to use the computer to its fullest capacity, programming concepts and conventions, and an introduction to computer graphics.

Although the book contains much useful information, it will probably be of more assistance to the reader who has some prior knowledge of programming.

"Mastering Your Timex Sinclair 1000 Personal Computer" is written by Tim Hartnell and Dilwyn Jones. Published by Bantam Books, and reasonably priced at \$3.95, it is available at local book or computer stores.

Starting off continued



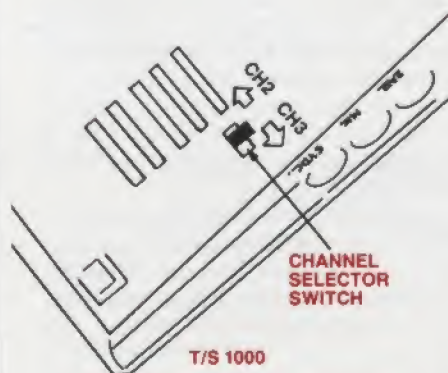
INSTALLATION DIAGRAM

If your television is equipped with either cable TV or a 75-OHM antenna lead (a round wire ending in a screw terminal), you will need to obtain — from your local electronics store — a UHF/VHF matching transformer to accommodate the Switch Box.

In the event that the cable TV is hard-wired (connected directly into your TV), contact your local cable company for assistance.

4. Set the Switch Box two-position COMPUTER/TV switch to position **COMPUTER**. (When you don't want to use the computer and want to watch TV, simply set the switch to position **TV**.)
5. Set the VHF Channel Selector on your television, and the channel control switch under your **TIMEX Sinclair Computer**, to either **channel 2** or **channel 3** — whichever channel is not used in your area.

(If both channels are used, either channel can be used; it is best to select the channel that provides the best image.)



UNDERSIDE OF COMPUTER

6. Insert one end of the TV cable into the jack on the COMPUTER/TV Switch Box and the other end into the TV jack on your **TIMEX Sinclair Personal Computer**.
7. Plug the jack from the computer power supply into the 9V DC jack on the computer. Then plug the power supply into the wall outlet.
8. If installing the RAM Expansion Module, simply (carefully) push the contacts on the RAM Module onto the circuit board at the rear of your computer.
9. Confirm that all connections are tight.
10. Turn your television set ON; the **K** cursor will display on the bottom of the screen (if it doesn't, check for loose connections, confirm that both the TV and computer have been set to the same channel, and adjust the vertical control on the TV to insure that the cursor is not "off-screen").

Follow this easy procedure and you'll put your best foot forward each and every time!



NEW T/S USERS' GROUP FORMING IN MISSISSIPPI

Here's a call for all **T/S** owners in the Jackson, Mississippi area. A new **T/S** user's group is now being formed. If you would like to expand your knowledge of **TIMEX Personal Computers** and explore new ways to get the most from your system, contact Robert Paradise or Ken Hipple at:

Paradise Systems
528 N. State St.
Suite B
Jackson, MS 39201
(601) 352-8149



HERE'S THE BEST WAY TO GET ORGANIZED

Put your **TIMEX Sinclair Personal Computer** and the **Organizer** software to work for you. It's the easiest way to reduce bundles of paperwork into a single, compact cassette tape.

Fundamentally, the **Organizer** is a data management tool. It is designed to store any type of information that can be listed (e.g., birthday and anniversary dates, telephone numbers, membership rosters, insurance policies, recipes; or items of a similar nature) and retrieve it — just when you need it the most.

Let's look at how it works:

To utilize the **Organizer**, load the program into your **TIMEX Sinclair Personal Computer**. This is accomplished by following the usual loading procedure, using the command: **LOAD "VU-FILE"** (or **LOAD " "**). Once the computer has been loaded, you can establish your file, create the record layout, define the data fields, and enter the individual records. Thereafter, you can choose to utilize the various options to enter, change, or delete records; list or print them; retrieve them in a particular order; or search (and find) a single record from a large number of similar records.

BASIC DEFINITIONS

We'll begin by defining some of the terminology that applies to the **Organizer**.

If we have a cabinet which pertains to employment applications, for example, that cabinet is our **file** — all information within applies to a common subject. And, each employment application within the cabinet constitutes one **record**. Instead of a cabinet, the computer is an electronic file and we will create individual records through the use of the display on your television screen.

If we look at any employment application we will note that it consists of printed areas which request information (such as name, address, and social security number) and the necessary blank spaces for the applicant's response. Those printed areas on the application are equivalent to our **record layout**; and those blank spaces are analogous to **data entry fields**.

NOW, LET'S GET ORGANIZED

When you load the **Organizer** for the first time, the Record Layout Screen is displayed. But, before typing the layout onto the TV screen, it is probably a good idea to write out the record with pencil and paper. Do be sure to allow adequate room for both

the preprinted data and the spaces into which data is to be entered for each record; the system supplies 32-spaces horizontally, and 19-lines vertically.

Now, using the Arrow keys (5, 6, 7, and 8 on your keyboard), move the cursor to the desired locations on the blank portion of the TV screen. Type the record layout (the illustration below will serve as a guide). To move the arrows, simultaneously press the SHIFT and the appropriate arrow keys. You can use letters, numbers, special characters, and graphic characters to create the record layout. Upon completion of the layout, simultaneously press the SHIFT and the STOP (A) keys. (Do not use the RUN and ENTER keys.)

RECORD LAYOUT USE THE KEYBOARD AS A TYPEWRITER TO ENTER TITLES OF A BLANK RECORD. MOVE CURSOR WITH THE ARROWS. STOP TO EXIT

USED CAR INVENTORY

ID NO: SERIAL NO:
 MAKE: YEAR:
 MODEL: COLOR:

RETAIL PRICE: \$
 WHOLESALE PRICE: \$

 SOLD: \$ DATE:

CREATING THE RECORD LAYOUT

The program now displays the Data Field Screen. This screen permits you to define the size (number of characters) of each field. To accomplish this, use the Arrow keys (as previously described) to move the cursor to the location where the field is to begin; then, press the ENTER key. Upon completion of the entire screen, simultaneously press the SHIFT and the STOP (A) keys. This step is illustrated below.

One word of *caution*! Make absolutely certain that you establish each data field in *exactly* the same sequence that you want to enter the data when you create the record. (Your ingenious Editor managed to create a layout that started from the last field at the bottom of the screen, and wrapped around backwards — you don't want to do this!)

DATA FIELDS MOVE THE CURSOR USING THE ARROW KEYS AND PRESS ENTER TO MARK THE START OF EACH DATA FIELD. STOP TO EXIT

USED CAR INVENTORY

ID NO: SERIAL NO:
 MAKE: YEAR:
 MODEL: COLOR:

RETAIL PRICE: \$
 WHOLESALE PRICE: \$

 SOLD: \$ DATE:

DEFINING THE DATA FIELDS

Next, enter the appropriate data to create the record. After entering data in the first field, press the ENTER key; the computer automatically advances to the next field. Should it be necessary to skip a particular field, simply press the ENTER key to do so (computer automatically enters all blanks into that field). The following illustration demonstrates a typical completed record.

ENTER A RECORD STOP TO EXIT

USED CAR INVENTORY

ID NO: 2117 SERIAL NO. AQ3287
 MAKE: OLDS YEAR: 1971
 MODEL: OMEGA COLOR: WHITE

RETAIL PRICE: \$695.00
 WHOLESALE PRICE: \$250.00

 SOLD: \$ DATE:

CREATING A RECORD

Repeat the above step until all desired records have been entered. The **Organizer** can hold approximately 100 records in its file. After entering the last record, simultaneously press the SHIFT and the STOP keys.

As illustrated below, the program now displays the Command screen. This permits you to select any **Organizer** option that you would like to use. Choose an option by typing the *first letter* of the command at the

Continued on page 4

Get organized continued

keyboard. Refer to the **Organizer** instructions for information pertaining to the operation of these options.

COMMANDS ARE: ENTER ALTER INFORM
FORWARD BACK RESET ORDER SELECT
QUIT LIST PRINT COPY DELETE
EACH DATA FIELD. STOP TO EXIT

COMMAND SCREEN

Finally, this software package is menu-driven. The Main Menu is displayed (refer to next illustration) when you select the **QUIT (Q)** option from the Command Screen. In addition, if you save the program and reload it, the Main Menu is displayed at the completion of the load.

PSION COMPUTERS

VU-FILE

- 1 - SET RECORD FORMAT
- 2 - ENTER VU-FILE
- 3 - SAVE VU-FILE AND DATA
- 4 - SET PRINTER FORMAT

PRESS 1 TO 4 FOR DESIRED OPTION

ORGANIZER MENU

AN EXTRA SPECIAL BONUS

The **Organizer** has a bonus for you; it is a second program called the **Gazetteer**. The **Gazetteer** is, in fact, a fascinating geographical dictionary of every country in the world. Each record (one record = one country) contains information pertaining to that country — such as its capital, main language, national currency, and much, much more.

To load the **Gazetteer**, proceed as follows:

1. Load your **Organizer** in the usual manner. Upon completion of the load, stop your tape recorder.
2. Quit the **Organizer** program to return to the Main Menu.
3. At the Main Menu, simultaneously press the SHIFT and BREAK (space) keys.

4. At the keyboard type:
LOAD "GAZETTEER"
5. Start your tape recorder by pressing the PLAY control. Then press the ENTER key.
6. When the **Gazetteer** is loaded, the Main Menu will appear on the screen. A new record can be created by selecting the first option from the menu; the second option can be used to display an individual record — one of which is illustrated below.

GAZETTEER	
COUNTRY	AFGHANISTAN
CONTINENT	ASIA
CAPITAL	KABUL
LANGUAGE	PUSHTU, DARI
CURRENCY	AFGHANI
POPULATION	19.5 MILLION
GNP PER CAPITA	100 US\$ (1979)
LAND AREA	657,000 SQ. KM.
STATISTICS OF THE WORLD'S NATIONS	

TYPICAL GAZETTEER RECORD

The options for the **Gazetteer** are those provided with the **Organizer**; refer to the instructions packaged within your software cassette.

TIMEX Software — gives you just a little extra.

The official **TIMEX®** Computer Club Newsletter, is published monthly by **TIMEX** Computer Corporation, P.O. Box 2655, Waterbury, CT 06725. Please direct all correspondence to the Editor.

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WHAT'S THE DIFFERENCE

Many **TIMEX Sinclair Personal Computer** owners have inquired about the differences between the Sinclair computer and the **TIMEX Sinclair Personal Computer**. Although these differences are small in number, they are also substantial in operating capabilities. Therefore, we'd like to take this opportunity to answer your questions.

SINCLAIR ZX-80 AND ZX-81

Originally designed for the European hobbyist, the Sinclair computer was first marketed in kit form. This inexpensive computer kit permitted the serious hobbyist to build and "customize" his or her own personal computer.

Equipped with a flat-surface, pressure sensitive keyboard, the ZX-80 contains a 4K ROM and a 1K RAM. The ZX-81 provides an 8K ROM and a 1K RAM; the memory capacity of the ZX-81 could be augmented by a 16K RAM pack.

As designed and marketed, the Sinclair computer could not accommodate a modem and offered little application-type software.

TIMEX SINCLAIR 1000 PERSONAL COMPUTER

Although similar to the ZX-81, the **TIMEX Sinclair 1000 Personal Computer** contains a number of improvements that meet the needs of the American consumer.

First of all, the **TIMEX Sinclair 1000** is a fully assembled, ready-to-go computer system. Everything (except the television set and the tape recorder) is provided right in the package. Just complete a simple installation procedure, and the system is ready for operation.

To provide more computing flexibility, the **T/S 1000** contains a larger memory; it is equipped with an 8K ROM and a 2K RAM. A 16K Ram Expansion Module substantially extends the storage capacity of the system. (Note that when the **RAM Expansion Module** is used, the computer's 2K RAM is shutdown. Therefore, you receive 16K of memory.) The computer is fully compatible with both the **TIMEX Modem** (coming soon) and the **TIMEX Printer**.

Today, more than 70 (and growing daily) **TIMEX** application software products are available. They are marketed on easily-stored, inexpensive tape cassettes for use in the home, the office, for education, and for enjoyment.



PREVIEWS

WE'VE GOT SOFTHEARTED SOFTWARE

All **TIMEX** software is designed with you in mind. As a result, you get easy-to-use, ready-to-go software products at a price that is E-Z on your pocketbook. There's no fuss or bother either, just load the tape cassette and away you go!

This month, we've got a treasure chest full of sparkling-new software releases ready for you. Best of all, your **TIMEX Sinclair Personal Computer** will give you more help and pleasure than ever before.

TIMEX SOFTWARE — FOR THE HOME

HEATING SYSTEM ANALYZER

Want to add a room to your house, change your heating system or add insulation? This program can show you how much money you'll save by improving your heating system.

Cassette: 03-2015
Size: 16K
Price: \$9.95*

SOLAR WATER HEATER DESIGNER

Shows you how efficient different collector designs are. Helps to determine which one is best for you and projects how much you can save on heating costs each year.

Cassette: 03-2017
Size: 16K
Price: \$12.95*

TIMEX SOFTWARE — FOR YOUR FAMILY'S EDUCATION

GEOMETRY I

Here's a great way to brush up on your math skills. This cassette helps you find the area of a polygon, solve the unknown given three parts of a triangle, and lets you convert an angle from degrees to radians and then back again.

Cassette: 02-3002
Size: 2K
Price: \$10.95*

ALGEBRA I

Get the answers to Algebra problems! This cassette helps you find the greatest common denominator of two numbers, solve simultaneous equations for the roots of a quadratic equation, and solves simultaneous linear equations of up to 10-unknowns.

Cassette: 02-3003
Size: 2K
Price: \$10.95*

ALGEBRA II

When you've just got to add, subtract, multiply or invert a matrix or find the number of combina-

tions or permutations of a set, this educational cassette is just what you need!

Cassette: 02-3004
Size: 2K
Price: \$10.95*

CAPITALIZATION MASTER

Reinforces correct capitalization techniques. It is useful when studying for an achievement test, English test, or just reviewing the ground rules. Menu-driven approach lends itself to ease of use.

Cassette: 03-3007
Size: 16K
Price: \$10.95*

E.E. I — FILTER DESIGN

An invaluable aid for the electronic engineer and students involved in the E.E. I filter design field. Fast menu-driven approach provides information on bandpass, low pass, or high pass filters. Plots of all of your design criteria are readily available.

Cassette: 03-3008
Size: 16K
Price: \$12.95*

GUITAR FOR BEGINNERS

A great way to learn or to practice with your guitar. Cassette reviews the parts of the guitar, its basic chords, bar chords, and chord progressions.

Cassette: 03-3009
Size: 16K
Price: \$10.95*

LANGUAGE USAGE

Specifically geared for students in grades 4 thru 12. Helps them improve scores on standardized achievement tests. Keeps records on lessons to help pinpoint troublesome areas.

Cassette: 03-3010
Size: 16K
Price: \$9.95*

SUPERDOODLES

Become an artist. You pick up characters displayed on the top of the screen and use them to draw detailed pictures. You can use a fast or slow pen to move the cursor. Lets you draw at your own pace.

Cassette: 03-3011
Size: 16K
Price: \$9.95*

TOTAL TRIANGLES

Total triangles encompasses the subject of triangulation. It can be used in the classroom as well as in business. Provides surface area if triangle has a length and weight, for example, if the triangle is made from various metals.

Cassette: 03-3012
Size: 16K
Price: \$9.95*

MUSIC EDUCATOR I

Music Educator I is an excellent starting point for learning the notes of the scale. Shows note name and timing by graphical display. An informal way of getting a musical education.

Cassette: 03-3013
Size: 16K
Price: \$9.95*

CONVERSATIONAL GERMAN

Teaches basic and useful words and phrases in the German language. It is highly beneficial to the student, the traveler, or anyone interested in conversational German. Over 240-words and 50-phrases are available to study. Program is menu-driven for ease of use.

Cassette: 03-3014
Size: 16K
Price: \$10.95*

CONVERSATIONAL FRENCH

Teaches basic and useful words and phrases in the French language. It is highly beneficial to the student, the traveler, or anyone interested in conversational French. Over 240-words and 50-phrases are available to study. Program is menu-driven for ease of use.

Cassette: 03-3015
Size: 16K
Price: \$10.95*

TIMEX SOFTWARE — FOR YOUR ENTERTAINMENT AND ENJOYMENT

BAT CAGE

A challenging game which provides 36-levels of skill. The object of the game is to catch the bat egg and release the bat in the cage. You then must defend your cage from the bats attempting to free the caged bat.

Cassette: 02-4004
Size: 2K
Price: \$9.95*

TRAP

An arcade type game in which you test your reflexes and see how many bouncing balls you can catch in the trap. The more you catch, the harder it is to catch them. Easy to learn, but difficult to master.

Cassette: 03-4014
Size: 16K
Price: \$9.95*

STRATEGY FOOTBALL

Strategy football is an exciting challenge for all. Features safeties, QB sacks, interceptions, field goals, big plays, and equally big losses, and kickoff returns. Five-offensive and four-defensive plays are provided.

Cassette: 03-4015
Size: 16K
Price: \$9.95*

* Suggested retail price.

MORE COMPUTER FOR YOUR \$'S

Absolutely the best value in the personal computer marketplace today, the brand new **TIMEX Sinclair 1500™** has all the conveniences and capabilities associated with the **T/S 1000**, plus a host of new features.

NEW KEYBOARD

One of the most prominent features of the **T/S 1500** is its 40-finger-contoured movable keys — which include 22-special characters and 22-graphic characters — gives you finger-tip control over all input. Of course, the unique **TIMEX** "one-step" keyword entry system eliminates tedious extra steps and saves valuable programming time.

T/S 1500 PERSONAL COMPUTER

EXPANDED MEMORY

An expanded memory is one of the primary reasons why you get more computer for your dollar.

Standard equipment includes an 8K Read Only Memory and a 16K Random Access (built-in) Memory. And, when the optional

newly-designed 16K RAM Expansion Module is added to the **T/S 1500**, you have a 32K computer at the very low price of \$129.90* — easily one of the truly great buys in today's personal computer market.

NEW AND BETTER SOFTWARE

You can still use all of your favorite **TIMEX 1000** software cassettes with the **T/S 1500** AND in addition, the **T/S 1500** will also utilize "instant-load" solid state software cartridges — new from **TIMEX**, and coming soon!

Furthermore, a virtual cornucopia of future software products will help you use your computer in ways you never thought were possible.

UPGRADING YOUR SYSTEM

The **T/S 1500** is fully compatible with the **TIMEX T/S 2050 Modem** (coming soon) and the **T/S 2040 Printer**. In this manner, you can start small and expand your system whenever you desire.

The **TIMEX Sinclair 1500** — great computer, great value, more computer for your hard-earned dollars, and coming soon!

*Suggested retail price of the **T/S 1500** is \$79.95; suggested retail price of the 16K RAM Expansion Module is \$49.95.



Ramblings
MAILBOX

First and foremost, **RAMBLINGS**, the **TIMEX** Computer Club Newsletter is a forum for you, the **T/S** user. Through this vehicle, **T/S** users — throughout the country — can exchange valuable and useful techniques, ideas, programs, and discuss other topics of mutual interest.

We gratefully solicit your articles, programs, suggestions, critiques, and brainstorming. Please mail your contributions to the **RAMBLINGS** Editor.

And if we publish your material during June, we'll say thank you by sending you a free **TIMEX** teeshirt. Please state your shirt size with your contribution.

THE TIMEX® TECHNOLOGICAL REVOLUTION ...



T/S 1500™ Personal Computer

- Moving Key Keyboard
- Great Timex Quality
- 16K Built-in;
Expandable to 32K
- Traditional Timex
Economy
- Quick-Load Cassette
or Cartridge Software

**...GIVES YOU THE
1500 PERSONAL COMPUTER**

THE FORUM

LETTERS TO THE EDITOR

PERCENT SENSE

Here is a method for generating the percent symbol from John Dodd of Mahwah, New Jersey:

1. Enter **Graphics** mode and type SHIFT 2.
2. Leave **Graphics** mode and type a slash (SHIFT, V key)
3. Enter **Graphics** mode and type SHIFT 4.
4. Leave **Graphics** mode and resume normal operation.

Assign a literal variable to the sequence described above; for example:

```
10 LET A$ = " = / = "
20 PRINT "INPUT INTEREST RATE
  IN "; A$
30 INPUT INTRATE
40 PRINT "INTEREST RATE IS ";
  INTRATE; A$
50 STOP
```

RUN

Computer-generated prompt:
INPUT INTEREST RATE IN = / =

Example of computer-generated response:
INTEREST RATE IS 12.5 = / =

CLEANING UP

John McKissick, Madison Heights, Michigan, is a firm believer of the value of periodically cleaning the connectors on the **TIMEX Personal Computer**. He used Q-Tips dipped in alcohol to maintain his system in tip-top shape.

Taking this one-step further, is Joseph Nehm from Farmington, New York. Joe tells us that mid-program crashes have been completely eliminated by an application of two squirts of TV tuner cleaner (such as Radio Shack #64-2315; \$1.59) (every two weeks) to the contacts on his **TIMEX RAM Expansion Module**.

Editor's Note: Never, never attempt to clean the contacts with the power on. Always unplug the computer before starting.

AN ENTERTAINING SORT

An intriguing routine (a routine is a sub-portion of the program which provides instructions to the computer, but will not run alone without the remainder of the program), submitted by Thomas E. Tillis of Superior, Wisconsin, prints dots to provide entertainment while his program sorts. Here's how he does it:

Just before the sort routine FOR/NEXT loop, **PRINT** "SORTING". Just after the FOR statement, **PRINT** ".". Then program the remainder of the sort routine in the usual manner, as briefly outlined below (this is an example of a routine; it will not run by itself on your computer):

```
10 REM "STUFF TO SORT"
20 DIM(S)
30 INPUT DATA (N1, N2, N3, etc.)
100 REM "OK, READY TO SORT"
110 PRINT "SORTING"
120 FOR I = 1 TO N
130 PRINT "."
140 REM "PUT IN REST OF SORT ROUTINE"
200 NEXT I
210 PRINT "DONE"
```

The results that follow are: The word "SORTING" is displayed. Each time the loop executes, a dot (period) is displayed after the word "sorting" ... The number of dots equals the number of items sorted. The speed of the dots, demonstrates the speed of the loop (minus printing time to print the dots). When the dots stop, the sort is complete, and the completion message is displayed.

PROGRAMMING CAN BE FUN

You can duplicate the following programs in your **TIMEX Personal Computer** to find out just how much fun programming can be. We are indebted to the T/S users identified by the first program REM for submitting the programs to **RAMBLINGS**.

MOVE THE DOT

Simple moving graphics are demonstrated by this program which allows you to move a flickering square around the screen. To enter line 20, switch to the Graphics mode and press the SPACE key. Repetitive action is available by holding the appropriate arrow key(s). After entering the program, **RUN** to execute. Stop the program with **BREAK**.

```
4 REM BY ROB SIEG, CLEVELAND, OHIO
5 REM MOVE THE DOT
6 REM USE DIRECTION KEYS 5, 6, 7, 8
7 REM
8 FAST
10 FOR A = 1 TO 22
20 PRINT "
30 NEXT A
35 SLOW
```

```
40 LET A = 30
50 LET B = 25
60 UNPLOT A, B
70 PLOT A, B
80 IF INKEY$ = "6" THEN LET B = B - 3
90 IF INKEY$ = "7" THEN LET B = B + 3
100 IF INKEY$ = "5" THEN LET A = A - 3
110 IF INKEY$ = "8" THEN LET A = A + 3
120 GOTO 60
```

DOLLARS BY THE POUND

Below, we have a program which is capable of converting dollars to pounds — and pounds to dollars.

After entering the program, **RUN** to execute, and enter the data when prompted to do so by the instructions on the TV screen. The program has, within it, several pause cycles. If the screen goes blank the system hasn't crashed, it's just pausing; wait for a few seconds until the program resumes its execution.

When you are ready to quit the program, press the BREAK key to do so (note that you can't BREAK when the program is in input mode).

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5 REM BY JOHN E. LOWE, BATH, MAINE
6 REM CONVERT $ TO £
10 PRINT "THIS IS A PROGRAM TO CONVERT THE $ TO £ AND VICE VERSA"
20 PRINT
30 PRINT "ENTER THE VALUE OF £ IN $"
40 INPUT E
50 CLS
60 GOTO 120
70 PRINT "IF YOU WANT TO CHANGE THE EXCHANGE RATE, PRESS ANY KEY"
80 PAUSE 360
90 CLS
100 IF INKEY$ < > " " THEN GOTO 30
110 CLS
120 PRINT "ENTER WHETHER YOU ARE STARTING WITH $ OR £"
130 INPUT A$
140 CLS
150 IF A$ = "$" THEN GOTO 170
160 IF A$ = "£" THEN GOTO 210
170 PRINT "ENTER AMOUNT IN DOLLARS"
180 INPUT D
190 PRINT "AMOUNT IN POUNDS = £"; D/E
200 GOTO 70
210 CLS
220 PRINT "ENTER AMOUNT IN POUNDS"
230 INPUT P
240 CLS
250 PRINT "AMOUNT IN DOLLARS = "; P*E
260 PAUSE 360
270 CLS
280 GOTO 70
```

Editor's Note: A tip of the hat and a free TIMEX T-shirt go to all contributors in this month's issue of RAMBLINGS.

COMPUTER VOCABULARY

Computer terminology is a specialized and unique language. To the first-time or uninitiated computer owner, this "jargon" can be misleading or confusing.

Each issue, we'll list some of the more common (and not so common) computer terms. These highly simplified definitions will help you better understand your computer and its "lingo". Spend a few minutes to learn these terms, and you'll soon be talking like a computer professional.

Backup (tape or disc) — Copy of a program on a tape cassette or disc. The program is copied from the master onto a spare cassette or disc to prevent the loss of the program in case the master is somehow damaged or destroyed.

Chip — One or more chips usually comprise a major part of the CPU. A chip is a manufactured silicone wafer, upon which certain operating functions (i.e., operating system program) have been etched.

Data Entry Field — An area on the screen into which data is entered either by the user's use of the keyboard or automatically by the computer. The data is displayed in the field as it is entered. This allows the user

to verify that the data has been entered correctly.

Enter — In the **TIMEX Sinclair Personal Computer**, ENTER is a keyboard command which tells the computer that you've finished a certain operation (i.e., input data at the keyboard). (It is analogous to an ACCEPT command.)

Execute — the computer's action of carrying out a particular instruction (e.g., running a program).

Hard Copy — Data, in the computer, which is reproduced onto paper by the printer.

Inverse — A character (can be a series of characters consisting of letter(s), number(s), or special character(s)) which is displayed on the screen or printed on hard copy as a white figure in a black background.

Main Frame — Used to describe the physically large, very powerful, very expensive computer systems.

Main Menu — The place from which all operations of a particular software application are begun. This Main Menu is a screen display which lists a number of options. The

user selects an option by pressing the numbered keyboard key which corresponds to the number of the option.

Master (tape or disc) — Original program recorded onto a storage media such as a tape cassette or disc.

Operating System — Software in ROM (read only) memory, that permits the computer to perform its various functions and operations. Since it is contained in the ROM memory, it can neither be amended or altered by the operator.

Syntax — Rules that apply to the manner in which a program statement should be written. The **TIMEX Sinclair Personal Computer** will display a Syntax cursor(s) (marker) if the format of the statement is incorrect.



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